

## A070us.txt

## SEQUENCE LISTING

<110> BIOGEN, INC.  
 APOTECH S.A.  
 BROWNING, Jeffrey  
 AMBROSE, Christine  
 MACKAY, Fabienne  
 TSCHOPP, Jurg  
 SCHNEIDER, Pascal

<120> BAFF, Inhibitors Thereof and Their Use  
 in the Modulation of B-Cell Response

<130> A070 US

<150> 60/117,169

<151> 1999-01-25

<150> 60/143,228

<151> 1999-07-09

<150> PCT/US00/01788

<151> 2000-01-25

<160> 22

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 218

<212> PRT

<213> Homo Sapien

<400> 1

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Asp | Ser | Thr | Glu | Arg | Glu | Gln | Ser | Arg | Leu | Thr | Ser | Cys | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Lys | Lys | Arg | Glu | Glu | Met | Lys | Leu | Lys | Glu | Cys | Val | Ser | Ile | Leu | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Arg | Lys | Glu | Ser | Pro | Ser | Val | Leu | Leu | Ser | Cys | Cys | Leu | Thr | Val | Val |
|     |     |     | 35  |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Phe | Tyr | Gln | Val | Ala | Ala | Leu | Gln | Gly | Asp | Leu | Ala | Ser | Leu | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     | 60  |     |     |     |     |     |
| Ala | Glu | Leu | Gln | Gly | His | His | Ala | Glu | Lys | Leu | Pro | Ala | Gly | Ala | Lys |
| 65  |     |     |     |     | 70  |     |     |     | 75  |     |     |     |     |     | 80  |
| Ile | Phe | Glu | Pro | Pro | Ala | Pro | Gly | Glu | Gly | Asn | Ser | Ser | Gln | Asn | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Arg | Asn | Lys | Arg | Ala | Val | Gln | Gly | Pro | Glu | Glu | Thr | Val | Thr | Gln | Asp |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Cys | Leu | Gln | Leu | Ile | Ala | Asp | Ser | Glu | Thr | Pro | Thr | Ile | Gln | Lys | Gly |

## A070us.txt

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     |     | 115 |     |     |     |     | 120 |     |     | 125 |     |     |     |     |     |
| Ser | Tyr | Thr | Phe | Val | Pro | Trp | Leu | Leu | Ser | Phe | Lys | Arg | Gly | Ser | Ala |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Leu | Tyr | Gly | Gln | Val | Leu | Tyr | Thr | Asp | Lys | Thr | Tyr | Ala | Met | Gly | His |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Leu | Ile | Gln | Arg | Lys | Lys | Val | His | Val | Phe | Gly | Asp | Glu | Leu | Ser | Leu |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Val | Thr | Leu | Phe | Arg | Cys | Ile | Gln | Asn | Leu | Glu | Glu | Gly | Asp | Glu | Leu |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Gln | Leu | Ala | Ile | Pro | Arg | Glu | Asn | Ala | Gln | Ile | Ser | Leu | Asp | Gly | Asp |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Val | Thr | Phe | Phe | Gly | Ala | Leu | Lys | Leu | Leu |     |     |     |     |     |     |
|     | 210 |     |     |     |     | 215 |     |     |     |     |     |     |     |     |     |

<210> 2  
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 <212> PRT  
 <213> Murine

<400> 2

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Glu | Ser | Ala | Lys | Thr | Leu | Pro | Pro | Pro | Cys | Leu | Cys | Phe | Cys |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     |     | 15  |     |
| Ser | Glu | Lys | Gly | Glu | Asp | Met | Lys | Val | Gly | Tyr | Asp | Pro | Ile | Thr | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gln | Lys | Glu | Glu | Gly | Ala | Val | Leu | Leu | Ser | Ser | Ser | Phe | Thr | Ala | Met |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Leu | Tyr | Gln | Leu | Ala | Ala | Leu | Gln | Ala | Asp | Leu | Met | Asn | Leu | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Met | Glu | Leu | Gln | Ser | Tyr | Arg | Gly | Ser | Ala | Thr | Pro | Ala | Ala | Ala | Lys |
| 65  |     |     |     | 70  |     |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Leu | Thr | Pro | Ala | Ala | Pro | Arg | Pro | His | Asn | Ser | Ser | Arg | Gly | His |
|     |     |     | 85  |     |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Arg | Asn | Arg | Arg | Ala | Phe | Pro | Gly | Pro | Glu | Glu | Thr | Glu | Gln | Asp | Val |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Asp | Leu | Ser | Ala | Pro | Pro | Ala | Leu | Arg | Asn | Ile | Ile | Gln | Asp | Cys | Leu |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gln | Leu | Ile | Ala | Asp | Ser | Asp | Thr | Pro | Thr | Ile | Arg | Lys | Gly | Thr | Tyr |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Thr | Phe | Val | Pro | Trp | Leu | Leu | Ser | Phe | Lys | Arg | Gly | Asn | Ala | Leu | Tyr |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Ser | Gln | Val | Leu | Tyr | Thr | Asp | Pro | Ile | Phe | Ala | Met | Gly | His | Val | Ile |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Gln | Arg | Lys | Lys | Val | His | Val | Phe | Gly | Asp | Glu | Leu | Ser | Leu | Val | Thr |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Leu | Phe | Arg | Cys | Ile | Gln | Asn | Leu | Glu | Glu | Gly | Asp | Glu | Ile | Gln | Leu |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Ala | Ile | Pro | Arg | Glu | Asn | Ala | Gln | Ile | Ser | Arg | Asn | Gly | Asp | Asp | Thr |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Phe | Phe | Gly | Ala | Leu | Lys | Leu | Leu |     |     |     |     |     |     |     |     |
| 225 |     |     |     |     | 230 |     |     |     |     |     |     |     |     |     |     |

<210> 3  
 <211> 102  
 <212> PRT  
 <213> Homo Sapien

<400> 3  
 Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr  
 1 5 10 15  
 Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys  
 20 25 30  
 Arg Gly Ser Ala Leu Glu Glu Lys Tyr Gly Gln Val Leu Tyr Thr Asp  
 35 40 45  
 Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val  
 50 55 60  
 Phe Gly Asp Glu Leu Ser Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala  
 65 70 75 80  
 Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn  
 85 90 95  
 Ala Gln Ile Ser Leu Asp  
 100

<210> 4  
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 <212> PRT  
 <213> Homo Sapien

<400> 4  
 Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys  
 1 5 10 15  
 Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg  
 20 25 30  
 Gly Arg Gly Leu Gln Ala Gln Tyr Ser Gln Val Leu Phe Gln Asp Val  
 35 40 45  
 Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Ala  
 50 55 60  
 Tyr Asn Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp  
 65 70 75 80  
 Ile Leu Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser  
 85 90 95

<210> 5  
 <211> 104  
 <212> PRT  
 <213> Homo Sapien

<400> 5  
 Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln Ala Glu Gly  
 1 5 10 15  
 Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu Ala Asn Gly  
 20 25 30  
 Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys Pro Ser Thr His

## A070us.txt

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     | 35  |     |     |     |     | 40  |     |     |     | 45  |     |     |     |     |
| Val | Leu | Thr | His | Thr | Ile | Ser | Arg | Ile | Ala | Val | Ser | Tyr | Gln | Thr |
| 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Glu | Gly | Ala | Glu | Ala | Lys | Pro | Trp | Tyr | Glu | Pro | Ile | Tyr | Leu | Gly |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     | 80  |
| Val | Phe | Gln | Leu | Glu | Lys | Gly | Asp | Arg | Leu | Ser | Ala | Glu | Ile | Asn |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |
| Pro | Asp | Tyr | Leu | Asp | Phe | Ala | Glu |     |     |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     |     |     |     |     |     |     |     |

<210> 6  
 <211> 97  
 <212> PRT  
 <213> Homo Sapien

<400> 6

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Arg | Lys | Val | Ala | His | Leu | Thr | Gly | Lys | Ser | Asn | Ser | Arg | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Met | Pro | Leu | Glu | Trp | Glu | Asp | Thr | Tyr | Gly | Ile | Val | Leu | Leu | Ser | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Lys | Tyr | Ser | Lys | Val | Tyr | Phe | Arg | Gly | Gln | Ser | Cys | Asn | Asn | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | Leu | Ser | His | Lys | Val | Tyr | Met | Arg | Asn | Ser | Lys | Tyr | Pro | Gln | Met |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Trp | Ala | Arg | Ser | Ser | Tyr | Leu | Gly | Ala | Val | Phe | Asn | Leu | Thr | Ser | Ala |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asp | His | Leu | Tyr | Val | Asn | Val | Ser | Glu | Leu | Ser | Leu | Val | Asn | Phe | Glu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

Glu

<210> 7  
 <211> 102  
 <212> PRT  
 <213> Homo Sapien

<400> 7

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Lys | Pro | Ala | Ala | His | Leu | Ile | Gly | Asp | Pro | Ser | Lys | Gln | Asn |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Leu | Trp | Arg | Ala | Asn | Thr | Asp | Arg | Ala | Phe | Leu | Gln | Asp | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Phe | Tyr | Ser | Gln | Val | Val | Phe | Ser | Gly | Lys | Ala | Tyr | Ser | Pro | Lys | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Ser | Ser | Pro | Leu | Tyr | Leu | Ala | His | Glu | Val | Gln | Leu | Phe | Ser | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gln | Tyr | Pro | Phe | Pro | Trp | Leu | His | Ser | Met | Tyr | His | Gly | Ala | Ala | Phe |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Gln | Leu | Thr | Gln | Gly | Asp | Gln | Leu | Ser | Thr | His | Thr | Asp | Gly | Ile | Pro |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

His Leu Val Leu Ser Phe  
 100

A070us.txt

<210> 8  
 <211> 109  
 <212> PRT  
 <213> Homo Sapien

<400> 8  
 Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr Asp Ile Pro  
 1 5 10 15  
 Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His Asp Arg Gly  
 20 25 30  
 Trp Gly Lys Ile Ser Asn Met Tyr Ala Asn Ile Cys Phe Arg His His  
 35 40 45  
 Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln Leu Met Val Tyr  
 50 55 60  
 Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Glu Phe His Phe Tyr Ser  
 65 70 75 80  
 Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser Gly Glu Glu Ile Ser  
 85 90 95  
 Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro Asp Gln  
 100 105

<210> 9  
 <211> 26  
 <212> DNA  
 <213> Homo Sapien

<400> 9  
 actgtttctt ctggaccctg aacggc  
 26

<210> 10  
 <211> 30  
 <212> DNA  
 <213> Homo Sapien

<400> 10  
 gacaagcttg ccaccatgga tgactccaca  
 30

<210> 11  
 <211> 23  
 <212> DNA  
 <213> Homo Sapien

<400> 11  
 actagtcaca gcagtttcaa tgc  
 23

<210> 12  
 <211> 22

<212> DNA  
<213> Homo Sapien

<400> 12  
ctgcagggtc cagaagaaac ag  
22

<210> 13  
<211> 24  
<212> DNA  
<213> Homo Sapien

<400> 13  
ggagaaggca actccagtca gaac  
24

<210> 14  
<211> 24  
<212> DNA  
<213> Homo Sapien

<400> 14  
caattcatcc ccaaagacat ggac  
24

<210> 15  
<211> 22  
<212> DNA  
<213> Homo Sapien

<400> 15  
tcggaacaca acgaaacaag tc  
22

<210> 16  
<211> 26  
<212> DNA  
<213> Homo Sapien

<400> 16  
cttctccttc acctggaaac tgactg  
26

<210> 17  
<211> 19  
<212> DNA  
<213> Homo Sapien

<400> 17  
ggcatcgtga tggactccg  
19

<210> 18  
<211> 19  
<212> DNA  
<213> Homo Sapien

<400> 18  
gctggaaggt ggacagcga  
19

<210> 19  
<211> 35  
<212> DNA  
<213> Homo Sapien

<400> 19  
taagaatgcg gccgcggaat ggatgagtct gcaaa  
35

<210> 20  
<211> 35  
<212> DNA  
<213> Homo Sapien

<400> 20  
taagaatgcg gccgcgggat cacgcactcc agcaa  
35

<210> 21  
<211> 21  
<212> DNA  
<213> Homo Sapien

<400> 21  
gcagtttcac agcgatgtcc t  
21

<210> 22  
<211> 21  
<212> DNA  
<213> Homo Sapien

<400> 22  
gtctccgttg cgtgaaatct g  
21